Description of Course CSE 216

PART A: General Information

1	**Course Title**	: DATABASE SESSIONAL
2	**Type of Course**	: SESSIONAL
3	**Offered to**	: DEPARTMENT OF CSE
4	**Pre-requisite Course(s)**	: NONE

PART B: Course Details

1. Course Content

Oracle SQL: Selection, Aggregation, Join, Sub-query; Oracle DML and DDL Statements; Oracle PL/SQL: Functions, Triggers, and Procedures; Design of a Database; Designing and Implementing multi-platform Database.

2. Course Objectives

The students are expected to:

i. Understand the design of databases for different use cases.
ii. Design databases and queries with focus on optimality and standard engineering practice.
iii. Develop software systems that utilize a database.

3. Knowledge required

Technical

- Computer Programming

4. Course Outcomes (COs)

CO No.	CO Statement After undergoing this course, students should be able to:	Corresponding PO(s)*	Domains and Taxonomy level(s)**	Delivery Method(s) and Activity(-ies)	Assessment Tool(s)
CO1	**Understand** the design of database for different use cases.	PO1, PO2, PO3	C1, C2	Lecture, Demonstration, and hands-on	Assignments or Projects, and Final Exam
CO2	**Design** databases and queries with focus on optimality and standard engineering practice.	PO4, PO5	C4	Lecture, Demonstration, and hands-on	Assignments or Projects, and Final Exam
CO3	**Develop** software systems that utilize a database.	PO6, PO9, PO10,	C5, C6	Lecture, Demonstration, and	Assignments or Projects, and

CO No.	CO Statement After undergoing this course, students should be able to:	Corresponding PO(s)*	Domains and Taxonomy level(s)**	Delivery Method(s) and Activity(-ies)	Assessment Tool(s)
		PO11		hands-on	Final Exam

***Program Outcomes (POs)**

PO1: Engineering knowledge; PO2: Problem analysis; PO3: Design/development of solutions; PO4: Investigation; PO5: Modern tool usage; PO6: The engineer and society; PO7: Environment and sustainability; PO8: Ethics; PO9: Individual work and teamwork; PO10: Communication; PO11: Project management and finance; PO12: Life-long learning.

****Domains**

C-Cognitive: C1: Knowledge; C2: Comprehension; C3: Application; C4: Analysis; C5: Synthesis; C6: Evaluation
A-Affective: A1: Receiving; A2: Responding; A3: Valuing; A4: Organizing; A5: Characterizing
P-Psychomotor: P1: Perception; P2: Set; P3: Guided Response; P4: Mechanism; P5: Complex Overt Response; P6: Adaptation; P7: Organization

5. Lecture/ Activity Plan

Week	Lecture Topics	Corresponding CO(s)
Week 1	• Oracle database installation • Introduction to Database, Tables and Relationships	CO1
Week 2	• DDL • Basic SQL Lecture 1 and Practice	CO1
Week 3	• Project group formation, Basic SQL Lecture 2 and Practice	CO1, CO2, CO3
Week 4	• Basic SQL Online, Project Finalization	CO1, CO2
Week 5	• Advanced SQL Lecture and Practice	CO1, CO2
Week 6	• Advanced SQL Online	CO1, CO2
Week 7	• ERD Online and Project Design Review	CO1, CO3
Week 8	• PL/SQL Lecture and Practice	CO1, CO2
Week 9	• Project Update 1	CO1, CO3
Week 10	• PL/SQL Function and Procedure Online	CO1, CO2
Week 11	• Project Update 2	CO1, CO3
Week 12	• PL/SQL Triggers Online	CO1, CO2
Week 13	• Final Project Presentation and Submission • Final Quiz	CO1, CO2, CO3

6. Assessment Strategy

- Class Attendance: Class attendance will be recorded in every class.
- Online/ Offline Assignments: There will be 3/4 online or offline assignments
- Projects: There will be a project related to topics covered in the sessional
- Final Quiz: A comprehensive Final Quiz will be held at the end of the semester as per the institutional ordinance.

7. Distribution of Marks

Attendance:	10%
Online Assignment:	35-40%
Final Project:	30%
Final Quiz:	20-25%
Total:	**100%**

8. Textbook/ Reference

a. Oracle-SQL-PL-SQL - A Brief Introduction, Sukarna Barua
b. Oracle Database, SQL Language Reference, Version 20c

Course Teacher(s):

Name:	Office/Room:	E-mail and Telephone:
Tanveer Awal (TA)		tanveerawal@cse.buet.ac.bd
Md. Toufikuzzaman (MTZ)	CSE 209	toufik@cse.buet.ac.bd
A.K.M. Mehedi Hasan (MHE)		mehedi_hasan@cse.buet.ac.bd
Ishrat Jahan (IJ)		ishratjahan039@gmail.com
Md. Ruhan Islam (MRI)		thisisruhan@gmail.com
Sheikh Azizul Hakim (SAH)		sheikh.hakim.2028@gmail.com
Mashiat Mustaq (MTM)		mashiatmustaq98@gmail.com
Saem Hasan (SMH)		saemhasan027@gmail.com

Prepared by:
Name: Md. Toufikuzzaman Signature:
Date of Preparation: May 31, 2023
Date of Approval by BUGS: